



[4910-13]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0356; Directorate Identifier 2011-SW-067-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Eurocopter Deutschland GmbH Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We are proposing a new airworthiness directive (AD) for all Eurocopter Deutschland GmbH (ECD) MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK B-1, MBB-BK 117 B-2, and MBB-BK C-1 helicopters equipped with a certain external-hoist system (hoist system) by requiring either deactivating the entire hoist system or deactivating the hoist system cable cutter function on the hoist system operator control handle (operator handle). This AD was prompted by an uncommanded activation of the hoist cable cutter function on an MBB-BK117 C-1 helicopter. This AD is intended to prevent uncommanded cutting of the hoist cable and subsequent injury to persons being lifted by the hoist.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.
- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**EXAMINING THE AD DOCKET:** You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052, telephone (972) 641-0000 or (800) 232-0323, fax (972) 641-3775, or at <http://www.eurocopter.com/techpub>.

You may review copies of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth Texas 76137.

**FOR FURTHER INFORMATION CONTACT:** George Schwab, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222-5110; email [george.schwab@faa.gov](mailto:george.schwab@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, reports that during a recent incident involving an MBB-BK 117 C-1 helicopter, the cable cut-off function of the rescue hoist system was triggered uncommanded, and the hoist cable was cut. The subsequent investigation revealed that this was caused by a malfunction within the rescue hoist system's remote

control handle assembly while extending the hoist boom. EASA advises that this condition, if not corrected, “will lead to detachment of an external load or person from the helicopter hoist, possibly resulting in personal injury, or injury to persons on the ground.”

As a result, EASA issued EASA AD No.: 2011-0126, dated July 1, 2011 (EASA AD 2011-0126), to correct this unsafe condition in the ECD Model MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 B-1, MBB-BK117 B-2, and MBB-BK117 C-1 helicopters equipped with a hoist system, Part Number (P/N) 117-80403 or 117-804061. EASA AD 2011-0126 requires deactivation of the affected external hoist system by pulling and securing the related circuit breakers, or by removing the hoist boom.

After EASA AD 2011-0126 was issued, it was discovered that pulling the circuit breaker WARN ANN II degraded the annunciator system’s redundant power supply, so that pilots could not be warned of a second helicopter system failure. Prompted by these findings, EASA issued superseding EASA AD No.: 2011-0131, dated July 8, 2011 (EASA AD 2011-0131), to require pulling only three circuit breakers, (CABLE CUTTER, WINCH CONT, and WINCH BOOM,) while circuit breaker WARN ANN II remains inserted.

EASA advises that since EASA AD 2011-0131 was issued “a corrective action has been developed to establish an adequate safety level, while a terminating action is under investigation but currently not available.” EASA subsequently issued the current EASA AD No.: 2011-0148, dated August 5, 2011 (EASA AD 2011-0148), which retains the requirements of EASA AD 2011-0131 and requires modification of the helicopter wiring and operator handle P/N 76803, a revision to the Rotorcraft Flight Manual and

Supplement, and repetitive inspections of the operator handle. EASA AD 2011-0148 also requires implementing a 10-year time frame for overhaul of the operator handle.

### **FAA's Determination**

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs. The hoist cable that extends from an MBB-BK 117 C-1 helicopter, used typically to pick up people or goods, often during emergencies, was cut with no command or push of the button from anyone aboard the aircraft. The cause was a malfunction in the cable hoist system. This situation could harm anyone being lifted in the rescue hoist.

### **Related Service Information**

ECD has issued Emergency Alert Service Bulletin MBB-BK117-80-166, Revision 1, dated August 4, 2011 (ASB). The ASB specifies the deactivation of the cable cutter function on the operator handle. After the cable cutter function on the operator handle has been deactivated, the rescue winch may be used.

### **Proposed AD Requirements**

This proposed AD would require either deactivation of the entire hoist system or deactivation of the hoist system cable cutter function on the operator handle within 30 days or before the system is used again, whichever comes first. Deactivating the entire hoist system would be accomplished by either pulling and securing three circuit breakers or by removing the hoist boom from the helicopter. Deactivating the external hoist system cable cutter function on the operator handle would be accomplished by modifying the helicopter wiring and the operator handle P/N 76803, repetitively inspecting the

operator handle, and replacing the operator handle if damaged. This AD also would prohibit installation of the affected hoist systems on any helicopter, unless the installation complies with this AD's requirements, and would prohibit installation of the operator handle on any helicopter unless it has been modified in accordance with this AD.

### **Differences between this Proposed AD and the EASA AD**

This AD would also apply to the Eurocopter Deutschland GmbH (ECD) Model MBB-BK 117 A-4 model. The EASA AD makes no mention of this model. The EASA AD also applies to the MBB-BK 117 A-1 model. Eurocopter informs us that the MBB-BK 117 A-1 model no longer exists, so we did not include it in our proposed AD. The EASA AD requires temporary revisions to the Rotorcraft Flight Manual and its supplements; this proposed AD does not. The EASA AD requires overhaul of the operator handle every ten years; this proposed AD does not.

### **Interim Action**

We consider this proposed AD to be an interim action. The design approval holder is currently developing a terminating action to address the unsafe condition identified in this AD. Once this terminating action is developed, approved, and available, we might consider additional rulemaking.

### **Costs of Compliance**

We estimate that this proposed AD would affect about 12 helicopters of U.S. registry.

We estimate the following costs to comply with this AD:

- Option 1: Pull and secure three circuit breakers. We estimate that this task would require about one half-hour to complete. At \$85 per work-hour, the labor cost

would total about \$43. No parts would be needed, so we estimate the total cost per helicopter to be \$43, or \$516 for the fleet.

- Option 2: Remove the hoist boom from the helicopter. We estimate that this task would require 1.5 hours to complete at \$85 per work-hour for a total labor cost of about \$128. No parts would be needed, so we estimate the total cost per helicopter to be \$128, or \$1,536 for the fleet.

- Option 3: We estimate that modifying the hoist operator handle would require four work-hours at \$85 per work-hour for a total labor cost of \$340 per helicopter. Parts would cost about \$92. Inspecting the hoist-operator handle for damage would take about one half-hour for a labor cost of about \$43. For 12 monthly inspections per year, the annual cost would total \$516. We estimate that replacing the operator handle with a new operator handle would require 0.25 work hour at \$85 an hour for a labor cost of about \$21 per helicopter. Parts would cost about \$18,500 for a total cost of \$18,521 per helicopter. Total costs per helicopter would vary, depending on whether repairs are needed.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.



## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**EUROCOPTER DEUTSCHLAND GmbH HELICOPTERS:** Docket No. FAA-2012-0356; Directorate Identifier 2011-SW-67-AD.

#### **(a) Applicability.**

This AD applies to Model MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK B-1, MBB-BK 117 B-2, and MBB-BK 117 C-1 helicopters with an external hoist system (hoist system) Part Number (P/N) 117-80403 or P/N 117-804061 installed, certificated in any category.

#### **(b) Unsafe Condition.**

This AD defines the unsafe condition as an uncommanded cutting of the hoist cable. This condition could result in loss of the helicopter hoist and load and subsequent injury to persons being lifted by the hoist.

#### **(c) Compliance.**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(d) Required Actions.**

(1) Before the next hoist operation or within 30 days, whichever comes first, comply with either paragraph (1)(i), (1)(ii), or (1)(iii):

(i) Deactivate the hoist system by pulling the CABLE CUTTER, WINCH CONT, and WINCH BOOM circuit breakers and securing each circuit breaker with a cable tie; or

(ii) Deactivate the hoist system by removing the hoist boom from the helicopter;  
or

(iii) Deactivate the external hoist operator handle cable-cutter function by accomplishing the following:

(A) Modify the helicopter wiring and the operator handle, P/N 76803, in accordance with the Accomplishment Instructions, Paragraph 3.B.1 (b), of Eurocopter Emergency Alert Service Bulletin MBB-BK117-80-166, Revision 1, dated August 4, 2011 (ASB).

(B) Inspect the operator handle P/N 76803 and the coiled cable of the operator handle for damage in accordance with Paragraph 3.B.1.(a)(2) of the ASB. Damage is also defined as any condition that could prevent the part's ability to perform its intended function.

(1) If the operator handle or the coiled cable of the operator handle has damage, replace the operator handle with an airworthy operator handle P/N 76803, before the next hoist operation.

(2) At intervals not to exceed 30 days, repeat the inspection in Paragraph (1)(iii)(B) of the Required Actions section of this AD.

(2) Before installing an affected hoist system on any helicopter, comply with Paragraph (1) of the Required Actions section of this AD.

(3) Before installing an operator handle P/N 76803 on any helicopter, comply with Paragraph (1)(iii)(A) of the Required Actions section of this AD.

**(e) Alternative Methods of Compliance (AMOC).**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: George Schwab, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222-5110; email [george.schwab@faa.gov](mailto:george.schwab@faa.gov).

(2) For operations conducted under a Part 119 operating certificate or under Part 91, Subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(f) Subject.**

Joint Aircraft Service Component (JASC) Code: 2597, Equipment/furnishing system wiring.

Issued in Fort Worth, Texas, on March 26, 2012.

Scott A. Horn,

Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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